

REMARKS

Applicant has received and reviewed the Final Office Action mailed by the Office on May 26, 2006 (hereinafter, "Final Action"), and submits this response to the Final Action with a request for continued examination (RCE).

Claims 1-13 and 16-27 are pending in the present application. Claims 1, 10, 11-13, 16, 25, 26, and 27 have been amended to clarify claimed subject matter and/or correct informalities. No new matter has been introduced by these amendments. Support for the amendments can be found in the original specification at least at page 6, [0016]; page 8, [0021]; page 9, [0023], [0024]; and Figures 2 and 3.

Claims 14 and 15 have been canceled previously, leaving Claims 1-13 and 16-27 for consideration upon entry of the present Amendment. Applicant requests favorable consideration of this response and allowance of the subject application based on the following remarks.

Statement of Substance of Interview

Applicant appreciates the Office's participation in a telephonic conference of July 17, 2006.

During the interview, the claimed subject matter of the application and the Barker and Chisholm references were discussed. Specifically, Applicant presented arguments as to how the cited documents, alone or in combination, lacked at least features, such as a switch fabric in a broadband access network, inventorying a broadband access network multiplexing element, and status information determining a number of logical cross-connects for the multiplexing element.

Also discussed during the interview was how the problem was solved by the claimed subject matter. In the interest of expediting prosecution of the application, and without conceding the propriety of the rejection, Applicant proposed to amend each of the independent claims to further clarify features of Applicant's claimed subject matter. Applicant is submitting the amendments in writing in the Response to the Office Action.

A. Claim Rejections Under 35 U.S.C. §103(a)

Claims 1-9, 12, 13, 16-24, and 27 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent Number 6,363,421 to Barker et al. (hereinafter "Barker") in view of U.S. Patent Number 6,697,970 to Chisholm (hereinafter "Chisholm"). Applicant respectfully traverses these rejections.

Applicant submits that the foregoing references, whether considered separately or in combination, do not support a §103 rejection of claims 1-9, 12, 13, 16-24, and 27.

Independent Claim 1 has been amended to further clarify features of Applicant's subject matter. Claim 1 now recites:

A method for inventorying a switch fabric in a broadband access network multiplexing element, the multiplexing element comprising a managed element in a broadband access network management system coordinated by a network manager, the method comprising:

inventorying a switch fabric in a broadband access network multiplexing element in a broadband access network from a remote location;

forming a portion of the broadband access network with a digital subscriber line access multiplexer (DSLAM);

establishing communication with an element manager in the plurality of element managers from the remote location, the element manager comprising an intermediary between the network manager and the multiplexing element;

gathering status information for the multiplexing element in a plurality of multiplexing elements by issuing a first interface retrieve command to the element manager from the remote location, wherein gathering the status information comprises determining a number of logical cross-connects provisioned in the multiplexing elements;

gathering status information for the switch fabric by issuing a second interface retrieve command to the multiplexing element from the remote location by utilizing the status information from the element manager; repeating the gathering status information for the switch fabric for each remaining multiplexing element in the plurality of multiplexing elements; repeating the gathering status information for the element manager for each remaining element manager in the plurality of element managers; receiving and compiling the status information into a report; and maintaining an inventory of the number of cross-connects in the DSLAM and in the broadband access network from the remote location.

First, the Office stated “gathering status information for the fabric structure” is not disclosed by Barker but disclosed by Chisholm at col. 5, lines 56-66 (Final Action, page 2).

For convenience, Applicant reproduces the cited portions of Chisholm:

Chisholm at col. 5, lines 56-66

FIG. 5A provides a schematic representation of the NMS-IS 28 incorporating a list of active alarms according to an embodiment of the present invention. The NMS-IS 28 functions as a system manager to include summarized information concerning the identity and status of the NEs 14A-C, 16A-C and possibly the EMS 18 in the network 60. Specifically, the NMS-IS 28 includes an NE inventory table 70 and an active alarm table 74 having alarm information supplied by the NEs 14A-C, 16A-C and the EMS 18. The NMS-IS 28 can further include other information such as state tables and the like depending on implementation and are well known to those skilled in the art.

This evidence does not support an obviousness rejection of Claim 1 because Barker or Chisholm, alone or in combination, do not teach or suggest “*status information comprises determining a number of logical cross-connects provisioned in the multiplexing element switch fabric, maintaining an inventory of the number of cross-connects in the digital subscriber line access multiplexer (DSLAM) and in the broadband access network from the remote location*”, as recited in Claim 1. Instead, Chisholm includes summarized information concerning the identity and status of the NEs and possibly the EMS (col. 59-61). For example, several of Chisholm’s Figures, including Figures 5A and 5B, show the

information in the inventory table simply as ID, Type, and Address, not status information as recited in Claim 1. The table is reproduced below:

Inventory Table of Chisholm (Figure 5A)

NE Inventory Table	
ID	
TYPE	
ADDRESS	

Additionally, Chisholm describes status as “on/off status of a device” (col. 1, lines 57-58). Therefore, this evidence is insufficient to support a *prima facie* case of obviousness of the claimed “*status information comprises determining a number of logical cross-connects*”, as recited in Claim 1. Because Barker and Chisholm do not teach or suggest all the claim features, alone or in combination, Applicant submits that Barker and Chisholm do not support an obviousness rejection of Claim 1.

Turning now to the motivation to combine Barker with Chisholm, the Office stated it was obvious to modify Barker with Chisholm to “to retrieve information about the network element in order to obtain information of interest to the NMS” (Final Action, page 3). The portion of Chisholm as cited by the Office is reproduced below:

Chisholm at col. 5, lines 15-19

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An alarm is a type of object that represents an abnormal condition or a condition of interest for the NEs 14A-C, 16A-C or the EMS 18. An alarm is considered active as long as the corresponding abnormal condition or condition of interest is maintained by the NE 14A-C, 16A-C or the EMS 18.

Applicant has reviewed the evidence and submits that the Office has failed to provide sufficient evidence to establish motivation for one of ordinary skill in the art, to modify the network element of Barker with Chisholm. There is insufficient evidence in Barker or Chisholm to combine their respective teachings and arrive at the subject matter as

claimed. Barker already retrieves information about the network element, such as static configuration data and maintenance state of objects (col. 5, lines 17-21). While Chisholm maintains a list of active alarms (col. 2, lines 31-32), which is not sufficient evidence to establish motivation.

Additionally, there is nothing in either reference that would suggest that the 'condition of interest' means "a number of logical cross-connects provisioned in the multiplexing element switch fabric". Finally, although Chisholm mentions condition and status, there is no suggestion that condition and status refer to "status information comprises determining a number of logical cross-connects provisioned in the multiplexing elements". The Office cannot improperly rely on hindsight without evidence of motivation to propose the suggested combination. This rejection is improper.

Second, the Office states the recited "repeating the gathering status information for the switch fabric for each remaining multiplexing element is not mentioned by Barker but by Chisholm in Figure 1 and at col. 5, lines 56-67", reproduced above (Final Action, page 4)

As mentioned in the arguments above, Barker or Chisholm do not teach or suggest "gathering the status information comprises determining a number of logical cross-connects", much less "repeating the gathering status information for the switch fabric for each remaining multiplexing element". As the two references do not teach or suggest the initial gathering status information, the two references also do not teach or suggest 'repeating' the gathering processes.

Furthermore, the Office's motivation for this modification is to "remotely manage/maintain network elements". There is no sound basis for modifying Chisholm to "remotely maintain network elements", as Chisholm already operates in a management

system in a network (col. 2, lines 63-65). Applicant's claimed subject matter is directed towards inventorying network elements, not maintaining network elements or a list of alarms. The Office improperly relied on hindsight without evidence of motivation to propose the suggested combination. This rejection is improper.

Third, the Office states the recited "repeating gathering status information for each remaining element manager" is mentioned by Chisholm (Final Action, page 4). Applicant respectfully disagrees with this assessment.

This evidence does not disclose, teach or suggest "repeating the gathering status information for each remaining element manager" and "wherein status information comprises determining a number of logical cross-connects", as recited in Claim 1. As Barker and Chisholm do not disclose, teach or suggest all the claim features, alone or in combination, Applicant submits that Barker and Chisholm do not support the stated obviousness rejections. Applicant thus requests reconsideration and withdrawal of the stated obviousness rejections.

Furthermore, the Office stated "it would have been obvious.....to remotely manage/maintain network elements." More specifically, the references, in combination, do not provide evidence sufficient to motivate one of ordinary skill in the art to arrive at Applicant's subject matter "inventorying a switch fabric in a broadband access network" and "maintaining an inventory of the number of cross-connects in the DSLAM and in the broadband access network from the remote location".

The evidence does not support a §103 rejection because Barker and Chisholm, whether considered alone or in combination, must teach or suggest all the elements of Claim 1. The Office has failed to uncover and select references, which teach, suggest, or disclose

the positively recited features of the claims. Applicant requests reconsideration and withdrawal of the stated §103 rejections of Claim 1.

Dependent Claims 2-13 depend directly or indirectly from independent Claim 1, and thus are allowable as depending directly or indirectly from an allowable base claim. Accordingly, Applicant requests withdrawal of the §103 rejections of these claims.

Independent Claim 16 is amended to recite features similar to those in Claim 1 and hence benefits from the same arguments directed above to Claim 1. Applicant asserts Barker and Chisholm fail to teach or suggest the features of independent Claims 1 and 16. Accordingly, Applicant requests withdrawal of the §103 rejections of these claims.

Dependent Claims 17-26 depend directly or indirectly from independent Claim 16, and are allowable for at least the reasons discussed above. Accordingly, Applicant requests reconsideration and withdrawal of the stated §103 rejections of these claims.

Independent Claim 27 is amended to recite features similar to those in Claim 1 and hence benefits from the same arguments directed above to Claim 1. Applicant asserts Barker or Chisholm fail to teach or suggest the features of independent Claims 1 and 27. Accordingly, Applicant requests withdrawal of the §103 rejections of these claims.

B. Claim Rejections Under 35 U.S.C. §103(a)

Claims 10, 11, 25, and 26 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent Number 6,363,421 to Barker in view of U.S. Patent Number 6,697,970 to Chisholm in further view of U.S. Patent Application Number 2002/0101854 A1 to Teixeira (hereinafter, "Teixeira").

The §103(a) rejections of claims 10, 11, 25, and 26 cite Barker and Chisholm. As explained above, Applicant submits that Barker or Chisholm alone or in combination, do not teach or suggest the features as recited in Claim 1.

Independent Claim 1 is amended to recite features formerly recited in dependent claim 10. The evidence does not support an obviousness rejection because Barker, Chisholm, or Teixeira alone or in combination, do not disclose, suggest, or teach “status information comprises determining a number of logical cross-connects provisioned in the multiplexing elements”, as recited in Claim 1 (formerly in claim 10). Rather, Teixeira provides service using a cross-connect switch to switch in new connections and switch out obsolete connections (Abstract).

Applicant further asserts that the Office has failed to provide evidence sufficient to establish motivation for one of ordinary skill in the art to modify these references or to combine their respective teachings and arrive at the subject matter of Claim 1. The Office stated the motivation “to achieve control of the switching element from a remote site”, but Barker and Chisholm do not need this feature, because both references are deployed in managed networks. Furthermore, there is nothing in any of the references that would suggest gathering status information by determining a number of logical cross-connects. Finally, although Teixeira mentions ‘status’, there is no suggestion, other than in Applicant’s disclosure, that status information is determining a number of logical cross-connects. Thus, this rejection is improper. Accordingly, Applicant requests withdrawal of the §103 rejections of these claims.

Dependent Claims 11, 25, and 26 depend directly or indirectly from independent Claim 16, and are allowable for at least the reasons discussed above. Accordingly,

Applicant requests reconsideration and withdrawal of the stated §103 rejections of these claims.

Conclusion

All pending Claims 1-13 and 16-27 are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the present application. If any issues remain that preclude issuance of the application, the Examiner is urged to contact the undersigned attorney before issuing a subsequent Action.

Respectfully Submitted,

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Dated: 8-25-2006

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